



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
|-----------------|-------------|----------------------|---------------------|

09/036.851 03/09/98 THOMPSON

C 11960.224

MM42/0708

MICHAEL F KRIEGER  
WORKMAN NYDEGGER & SEELEY  
1000 EAGLE GATE TOWER  
60 EAST SOUTH TEMPLE  
SALT LAKE CITY UT 84111

EXAMINER

LEE, J

ART UNIT

PAPER NUMBER

2874

DATE MAILED:

07/08/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
- 09/036,851

Applicant(s)

Curtis Thompson

Examiner

John D. Lee

Group Art Unit

2874



☐ Responsive to communication(s) filed on \_\_\_\_\_

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire THREE (3) month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-18 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-18 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

The five (5) sheets of formal drawing submitted with this application have been approved by the Office Draftsperson (note the attached form PTO-948).

Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-15 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In lines 15-16 of independent claim 8, there is no antecedent support for "the PDA housing". The correct term would be --the PDA case--. Note that the word "housing" is only used with reference to the adapter. Claim 8 is therefore indefinite. Claims 9-15 all depend, directly or indirectly, from claim 8 and thus inherently contain the same indefiniteness.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

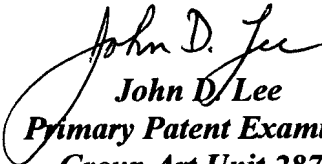
Claims 1-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,778,256 to Darbee. Darbee discloses an apparatus comprising a PDA and an adapter therefor, Darbee making it clear that the PDA 10 and the adapter 12 can be separate elements which are removably electrically coupled together. The adapter 12 includes, inter alia, a microprocessor and

one or more light sources (e.g. LED's) configured to emit infrared light beams. The apparatus of Darbee differs from that of applicant's claims in that Darbee is a "transmit only" arrangement - i.e. there is no optical receiver included in the adapter. Exemplary functions performed by the Darbee apparatus include remote control of infrared activated electronic devices and remote control of infrared activated automation equipment (column 1 of the reference). It would have occurred to a person of ordinary skill in the art that such an apparatus could also be used for interactive control of such electronic devices or automation equipment, thus requiring one or more infrared receivers in the adapter 12 as well as the infrared sources already in place. The modification of the Darbee apparatus to include such a "transmit and receive" arrangement, wherein both infrared transmitters and infrared receivers are electrically coupled to the microprocessor, would therefore have been obvious to the person of ordinary skill. The infrared light sources disclosed by Darbee are light emitting diodes (LED's), but clearly other equivalent infrared light emitters could be used as well. The use of semiconductor lasers as the infrared light sources would thus have been obvious. In addition to interactive control of electronic devices or automation equipment, the proposed modified Darbee apparatus could be used for identification purposes (i.e. optical bar codes). Note that Darbee includes switching means in the adapter 12 for turning the light sources on and off. Since the infrared beam transmission parameters include encoding and data format, it is clear that the analog electrical signals are converted to a digital form for actual transmission. The employment of any particular known means for digital conversion (e.g. an on/off LCD) would have been obvious to a person of ordinary skill in the art. Finally, the specific design appearance of the Darbee apparatus (shape, profile, etc.) or any such apparatus is not involved in the determination of patentability (note that the present

application is **not** a Design Patent application). Any modifications in such design would therefore have been obvious to the person of ordinary skill.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other examples of PDA interface arrangements can be seen in U.S. Patent 5,664,231 to Postman et al, U.S. Patent 5,671,374 to Postman et al, and U.S. Patent 5,675,524 to Bernard.

Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (703) 308-4886. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (703) 308-0956 or to the technical support staff supervisor at telephone number (703) 308-4854.

  
**John D. Lee**  
**Primary Patent Examiner**  
**Group Art Unit 2874**